

MILLER CONSTRUCTION, INC.

P.O. BOX 86 ASCUTNEY BLVD WINDSOR, VERMONT 05089-0086

TELEPHONE (802) 674-5525 / FAX (802) 674-5245

TRANSMITTAL

TO: Jennifer Fitch, PE Project Manager Vermont Agency of Transportation	DATE	PROJECT NO.
	6/11/2014	Brookfield BRF FLBR (2)

XX

WE ENCLOSE THE FOLLOWING:

UNDER SEPARATE COVER WE ARE SENDING THE FOLLOWING

COPIES	NUMBER	DESCRIPTION	CODE
1		Bearing Device Assembly Shop Drawings - Rev 0	H
1		Bearing Device Assembly WPS - Rev 0	H

CODE:

A FOR INITIAL APPROVAL

B FOR FINAL APPROVAL

C APPROVED AS NOTED-RESUBMISSION REQUIRED

D APPROVED AS NOTED-RESUBMISSION NOT REQUIRED

E DISAPPROVED-RESUBMIT

F QUOTATION REQUESTED

G APPROVED

H FOR APPROVAL

I AS REQUESTED OR REQUIRED


J FOR USE IN ERECTION

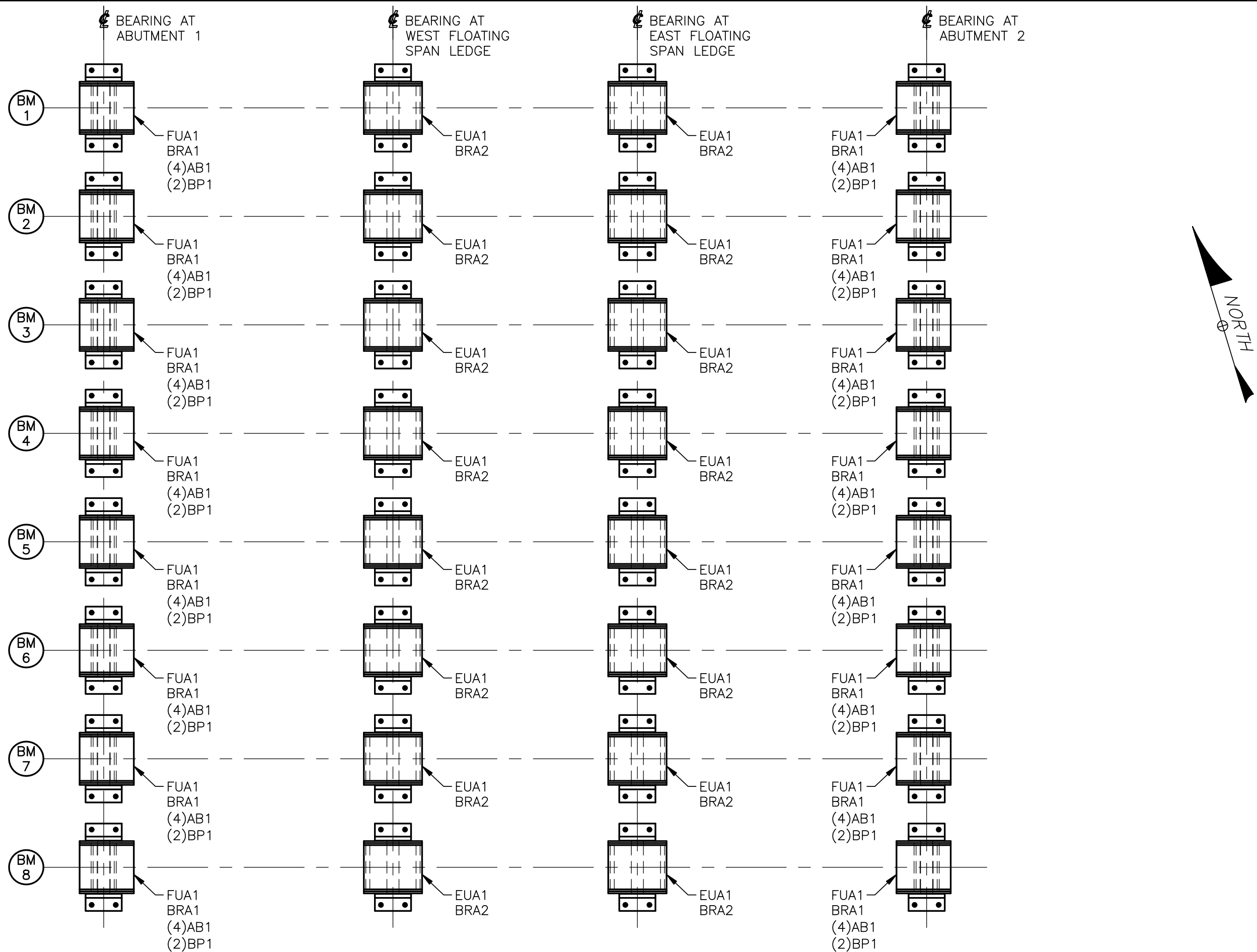
K LETTER FOLLOWS

L FOR FIELD CHECK

M FOR YOUR USE

BY:





ERECTION DIAGRAM

SEE SHEET 1
FOR GENERAL NOTES
SEE SHEETS 1, 2, 3 & 5
FOR ASSEMBLY DETAILS
SEE SHEETS 4 & 6
FOR COMPONENT DETAILS
SEE SHEET 6
FOR ANCHOR BOLT & PAD DETAILS
SEE SHEETS E2 THRU E4
FOR INSTALLATION DIAGRAMS

STATE OF VERMONT
AGENCY OF TRANSPORTATION
VT ROUTE 65 (MINOR COLLECTOR)
BRIDGE NO. 2
TOWN OF BROOKFIELD

STATE	COUNTY	CONTROL NO.
VT	ORANGE	NA

PROJECT NO.: BRF FLBR(2)

COSMEC, INC.
STAINLESS STEEL BEARING ASSY.'S

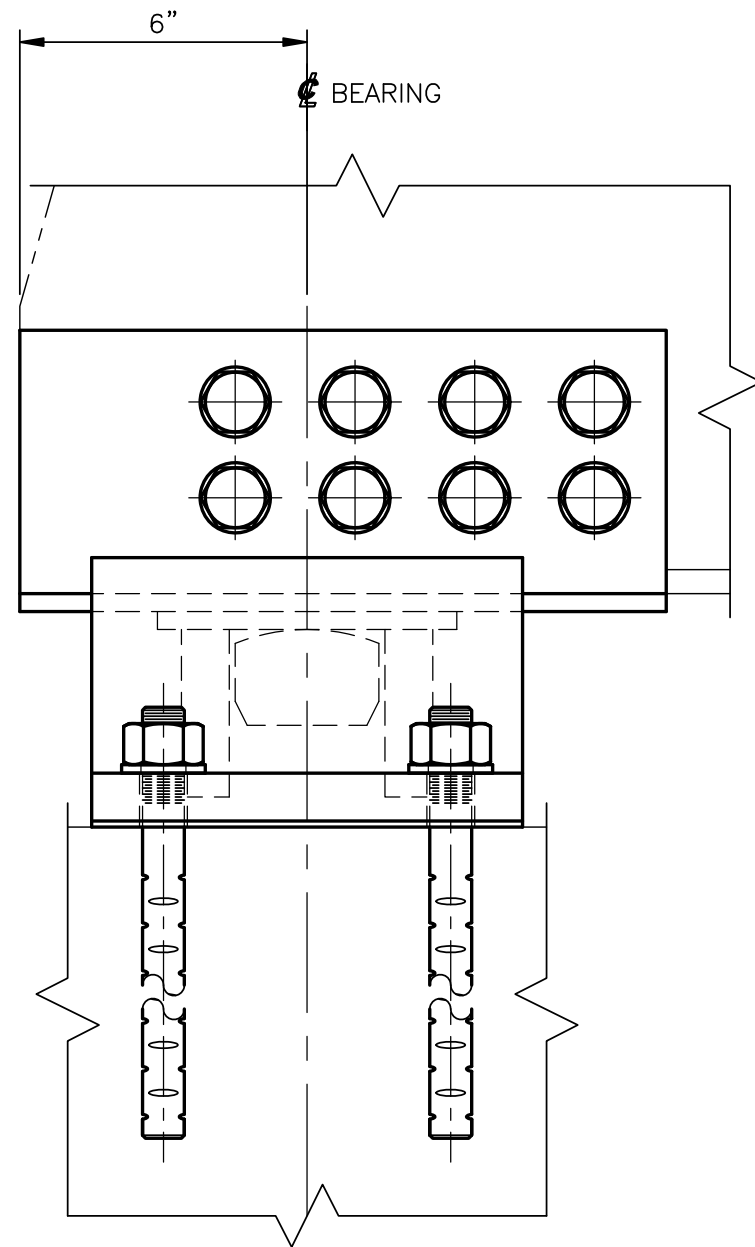
Cosmec 1501 ROCKY RIDGE ROAD
P.O. BOX 2159
ATHENS, TEXAS 75751

SCALE: NONE	DRAWN BY: MH	CHECKED BY: SL
	DATE: 05/28/14	DATE: 06/06/14

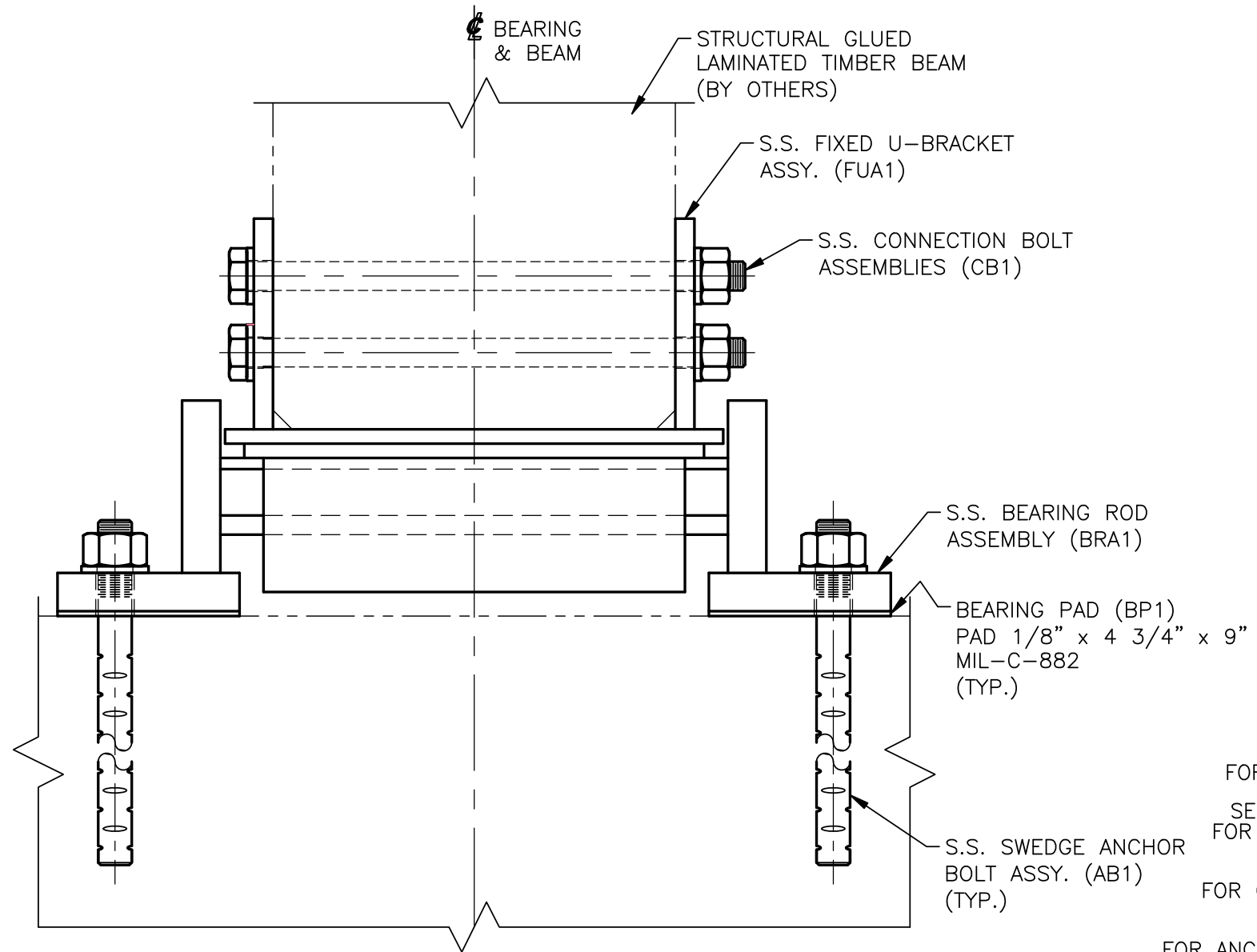
SHEET E1 OF 4 **JOB NO.: 12445**

CUSTOMER MILLER CONSTRUCTION, INC.	DRAWING NUMBER 12445-E1	REV. 0
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REV.	DESCRIPTION	BY	DATE	CK'D	DATE



ELEVATION VIEW



FRONT VIEW

FIXED BEARING ASSEMBLY INSTALLATION DIAGRAM

- (8) LOCATED @ ABUTMENT 1
(8) LOCATED @ ABUTMENT 2
(16) REQUIRED

SEE SHEET 1
FOR GENERAL NOTES

SEE SHEETS 1 & 3
FOR ASSEMBLY DETAILS

SEE SHEET 4
FOR COMPONENT DETAILS

SEE SHEET 7
FOR ANCHOR BOLT, CONNECTION
BOLT & PAD DETAILS

STATE OF VERMONT
AGENCY OF TRANSPORTATION
VT ROUTE 65 (MINOR COLLECTOR)
BRIDGE NO. 2
TOWN OF BROOKFIELD

STATE	COUNTY	CONTROL NO.
VT	ORANGE	NA

PROJECT NO.: BRF FLBR(2)

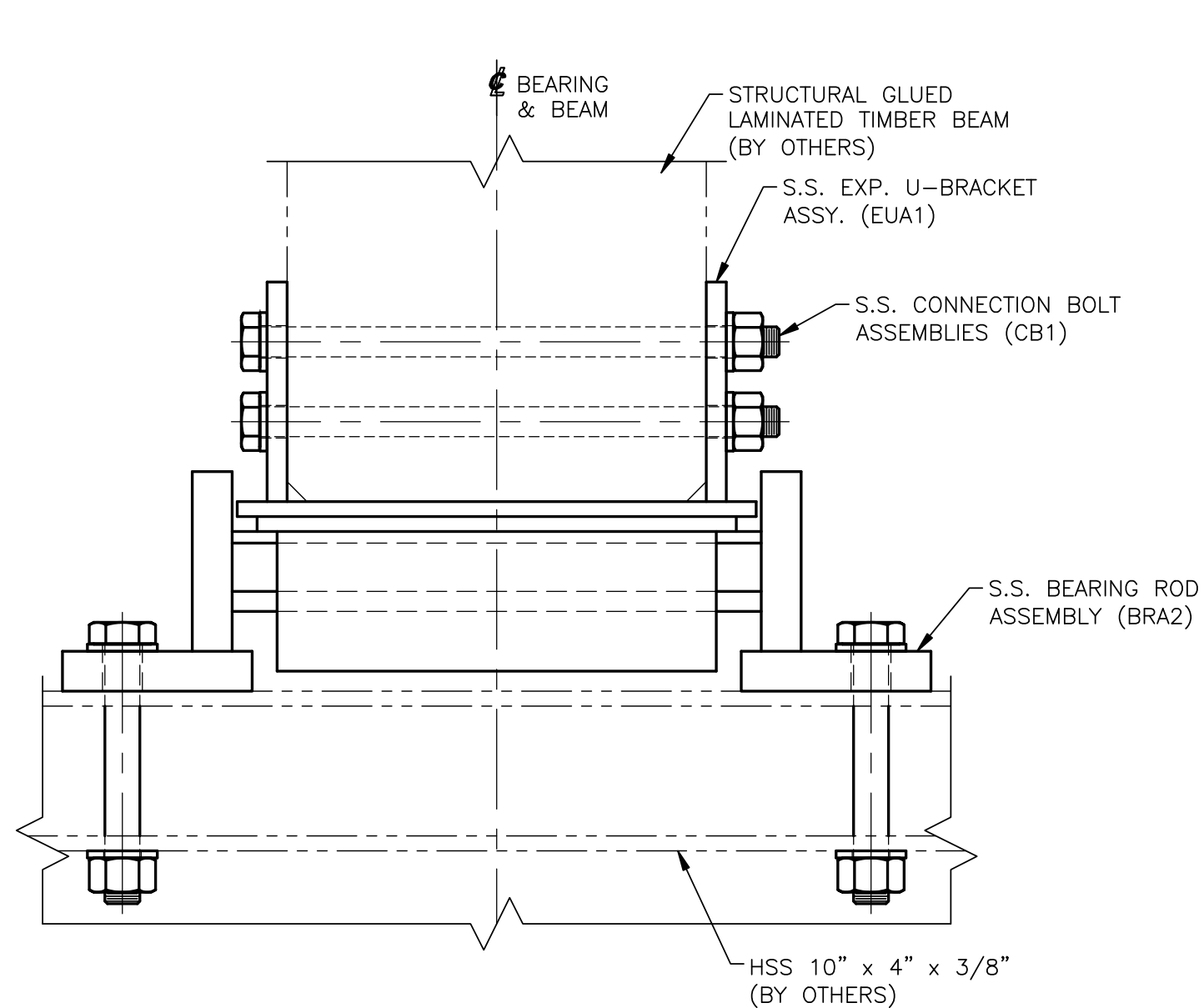
COSMEC, INC.
STAINLESS STEEL BEARING ASSY.'S

Cosmec 1501 ROCKY RIDGE ROAD
P.O. BOX 2159
ATHENS, TEXAS 75751

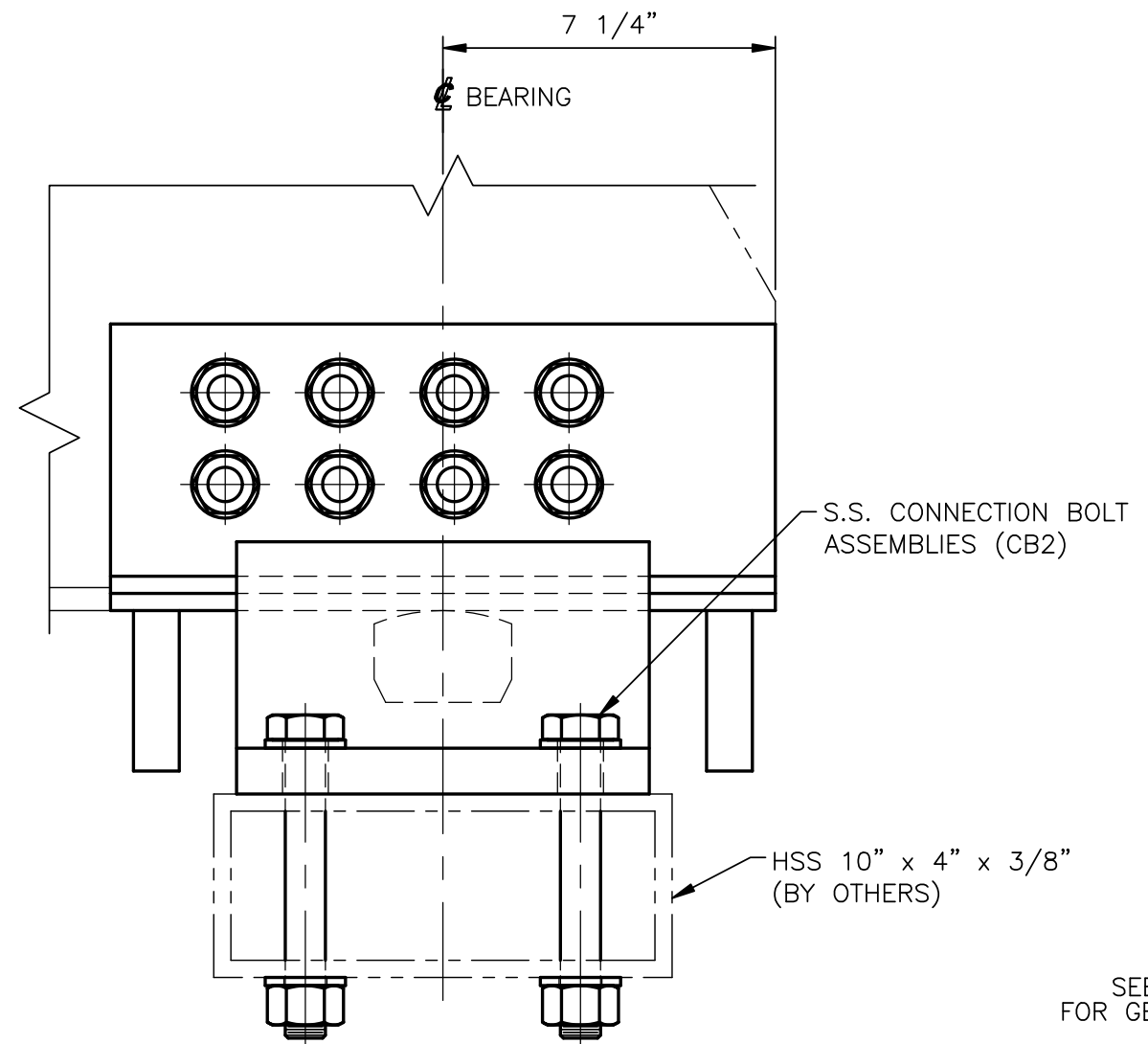
SCALE: NONE	DRAWN BY: MH	CHECKED BY: SL
	DATE: 05/28/14	DATE: 06/06/14

SHEET E2 OF 4 **JOB NO.: 12445**

REV.	DESCRIPTION	BY	DATE	CK'D	DATE	CUSTOMER	DRAWING NUMBER	REV.
						MILLER CONSTRUCTION, INC.	12445-E2	0



FRONT VIEW



FRONT VIEW

EXPANSION BEARING ASSEMBLY INSTALLATION DIAGRAM

- (8) LOCATED @ WEST FLOATING SPAN LEDGE
 (8) LOCATED @ EAST FLOATING SPAN LEDGE
 (16) REQUIRED

SEE SHEET 1
FOR GENERAL NOTES

SEE SHEETS 2 & 5
FOR ASSEMBLY DETAILS

SEE SHEET 6
FOR COMPONENT DETAILS

SEE SHEET 7
FOR CONNECTION BOLT DETAILS

STATE OF VERMONT
AGENCY OF TRANSPORTATION
VT ROUTE 65 (MINOR COLLECTOR)
BRIDGE NO. 2
TOWN OF BROOKFIELD

STATE	COUNTY	CONTROL NO.
VT	ORANGE	NA

PROJECT NO.: BRF FLBR(2)

COSMEC, INC.
STAINLESS STEEL BEARING ASSY.'S

Cosmec 1501 ROCKY RIDGE ROAD
 P.O. BOX 2159
 ATHENS, TEXAS 75751

SCALE: NONE	DRAWN BY: MH	CHECKED BY: SL
	DATE: 05/28/14	DATE: 06/06/14

SHEET E3 OF 4 **JOB NO.: 12445**

REV.	DESCRIPTION	BY	DATE	CK'D	DATE	CUSTOMER	DRAWING NUMBER	REV.
						MILLER CONSTRUCTION, INC.	12445-E3	0

1" DIA. HOLE-
(TYP.)




(8) LOCATED @ ABUTMENT 1
(8) LOCATED @ ABUTMENT 2
(16) REQUIRED




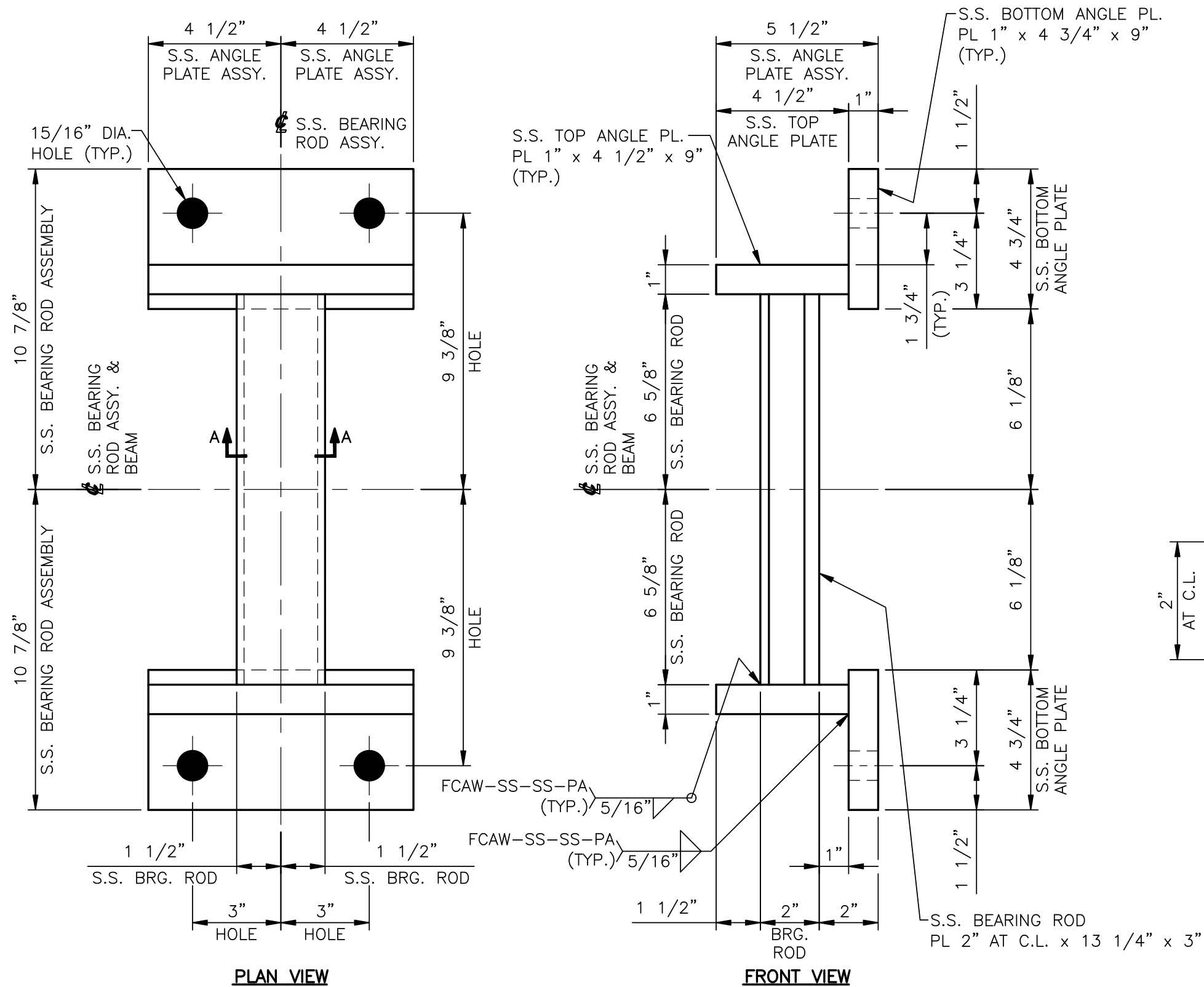
Technical drawing of a mechanical part, likely a valve cover or head, showing dimensions and finish requirements. The part is shown in a cross-sectional view with hatching. Key dimensions and features include:

- Overall Width:** 3"
- Overall Height:** 2" AT C.L. (At Center Line)
- Top Surface Finish:** ANSI 250 FINISH
- Top Surface Radius:** R=4"
- Bottom Surface:** 1/2" (TYP.)
- Side Surface:** 1/4" (TYP.)

SECTION A-A
BEARING ROD
ASTM A240 TYPE 304
PL 2" AT C.L. x 13 1/4" x 3
(16) REQUIRED

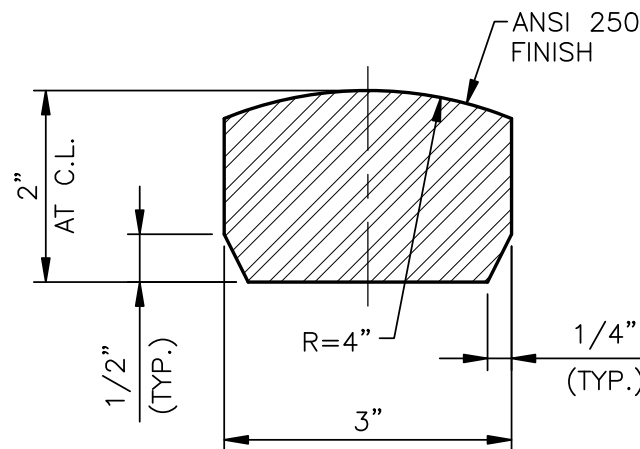
STATE OF VERMONT AGENCY OF TRANSPORTATION			
VT ROUTE 65 (MINOR COLLECTOR) BRIDGE NO. 2 TOWN OF BROOKFIELD			
STATE	COUNTY	CONTROL NO.	
VT	ORANGE	NA	
PROJECT NO.: BRF FLBR(2)			
<i>COSMEC, INC.</i> <i>STAINLESS STEEL BEARING ASSY.'S</i>			
		1501 ROCKY RIDGE ROAD P.O. BOX 2159 ATHENS, TEXAS 75751	
SCALE: NONE	DRAWN BY: MH	CHECKED BY: SL	
	DATE: 05/28/14	DATE: 06/06/14	
SHEET 1 OF 7	JOB NO.: 12445		
CUSTOMER MILLER CONSTRUCTION, INC.		DRAWING NUMBER 12445-D1	REV. 0

						SHEET 1 OF 7		JOB NO.: 12445		
REV.	DESCRIPTION	BY	DATE	CK'D	DATE	CUSTOMER MILLER CONSTRUCTION, INC.			DRAWING NUMBER 12445-D1	REV. 0




S.S. BEARING ROD ASSEMBLY
MARK: BRA2

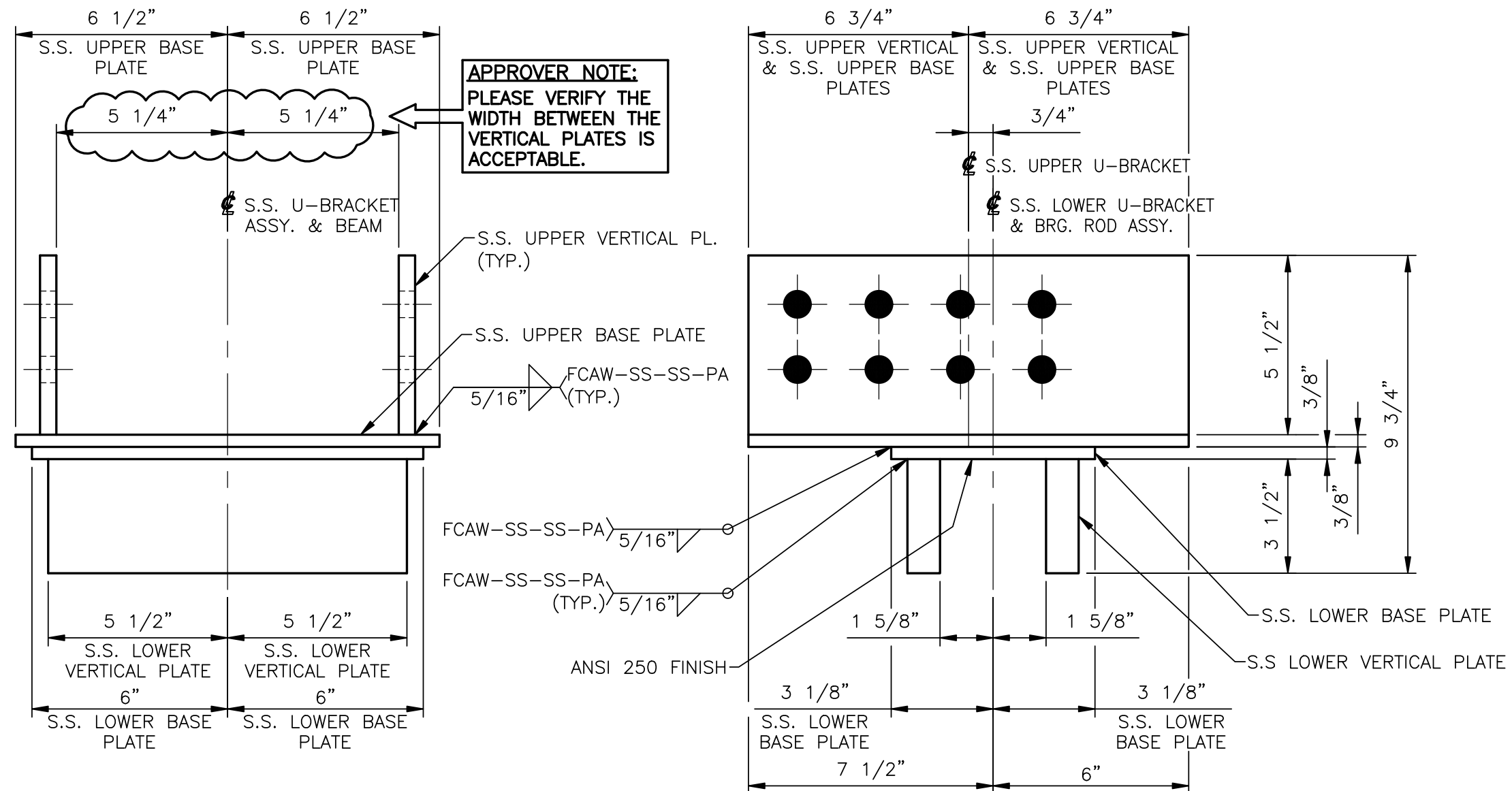
- (8) LOCATED @ WEST FLOATING SPAN LEDGE
(8) LOCATED @ EAST FLOATING SPAN LEDGE
(16) REQUIRED



SECTION A-A
BEARING ROD
ASTM A240 TYPE 304
PL 2" AT C.L. x 13 1/4" x 3
(16) REQUIRED

SEE SHEET 1 FOR GENERAL NOTES		
STATE OF VERMONT AGENCY OF TRANSPORTATION		
VT ROUTE 65 (MINOR COLLECTOR) BRIDGE NO. 2		
TOWN OF BROOKFIELD		
STATE	COUNTY	CONTROL NO.
VT	ORANGE	NA
PROJECT NO.: BRFLBR(2)		
COSMEC, INC. STAINLESS STEEL BEARING ASSY.'S		
 1501 ROCKY RIDGE ROAD P.O. BOX 2159 ATHENS, TEXAS 75751		
SCALE: NONE	DRAWN BY: MH	CHECKED BY: SL
	DATE: 05/28/14	DATE: 06/06/14
SHEET 2 OF 7	JOB NO.: 12445	
CUSTOMER MILLER CONSTRUCTION, INC.	DRAWING NUMBER 12445-D2	REV. 0

REV.	DESCRIPTION	BY	DATE	CK'D	DATE



FRONT VIEW

ELEVATION VIEW

**S.S. FIXED U-BRACKET ASSEMBLY
MARK: FUA1**

- (8) LOCATED @ ABUTMENT 1
(8) LOCATED @ ABUTMENT 2
(16) REQUIRED

SEE SHEET 1
FOR GENERAL NOTES

SEE SHEET 4
FOR COMPONENT DETAILS

STATE OF VERMONT
AGENCY OF TRANSPORTATION
VT ROUTE 65 (MINOR COLLECTOR)
BRIDGE NO. 2
TOWN OF BROOKFIELD

STATE	COUNTY	CONTROL NO.
VT	ORANGE	NA

PROJECT NO.: BRFLBR(2)

COSMEC, INC.
STAINLESS STEEL BEARING ASSY.'S

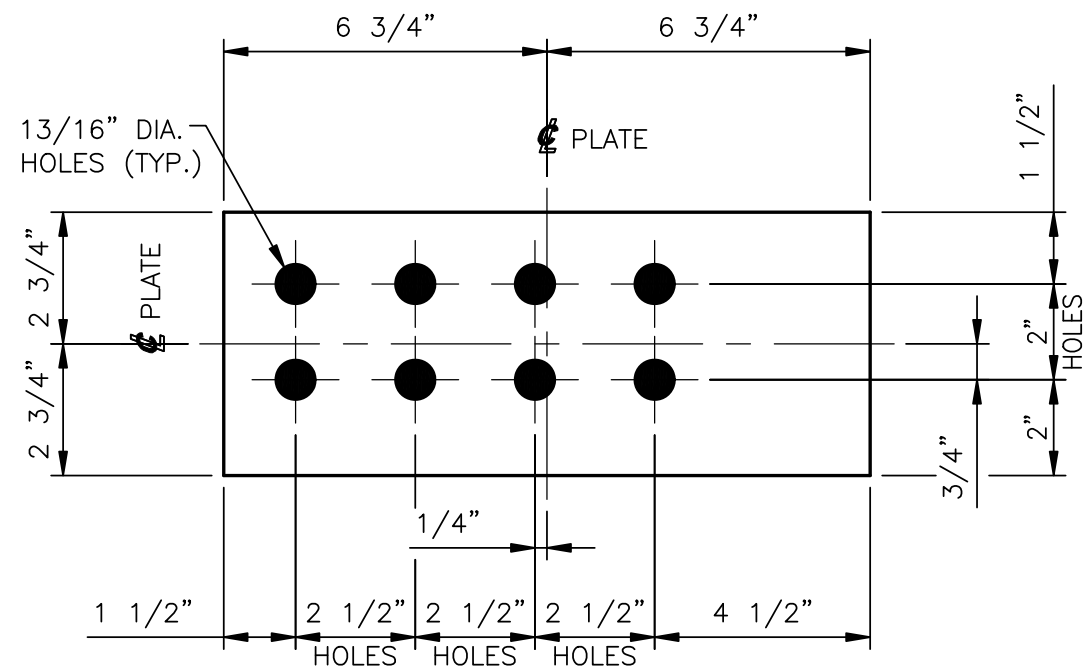
Cosmec 1501 ROCKY RIDGE ROAD
P.O. BOX 2159
ATHENS, TEXAS 75751

SCALE: NONE	DRAWN BY: MH	CHECKED BY: SL
	DATE: 05/28/14	DATE: 06/06/14

SHEET 3 OF 7 **JOB NO.: 12445**

CUSTOMER MILLER CONSTRUCTION, INC.	DRAWING NUMBER 12445-D3	REV. 0
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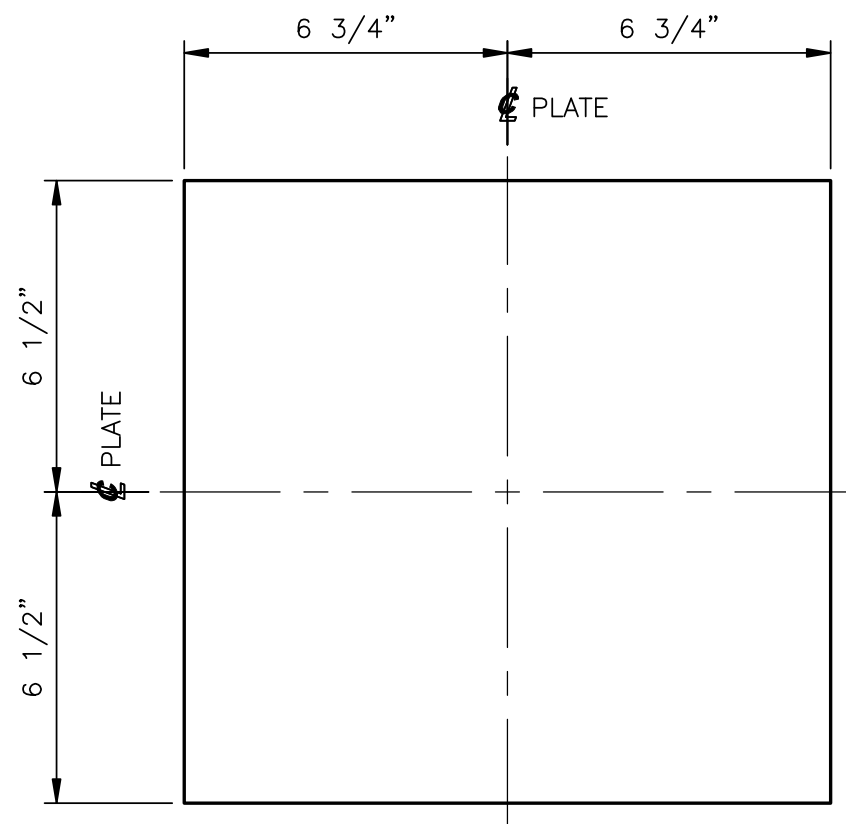
REV.	DESCRIPTION	BY	DATE	CK'D	DATE



S.S. UPPER VERTICAL PLATE

MARK: FUA1

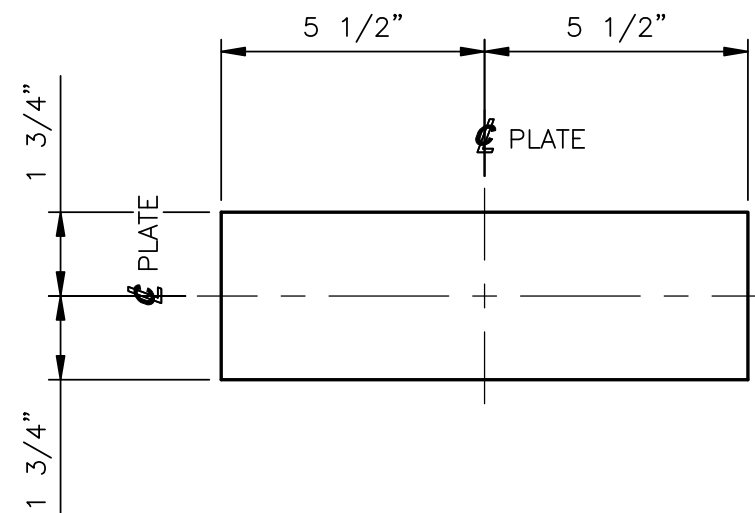
PL 1/2" x 5 1/2" x 13 1/2"
ASTM A240 TYPE 304 (UNPAINTED)
(32) REQUIRED



S.S. UPPER BASE PLATE

MARK: FUA1

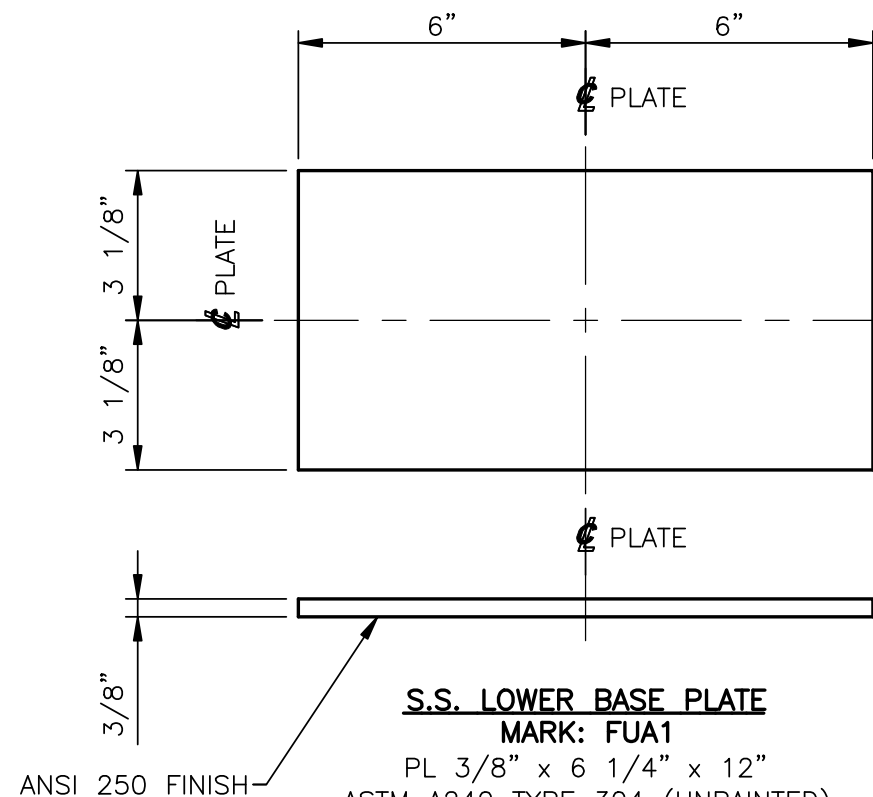
PL 3/8" x 13" x 13 1/2"
ASTM A240 TYPE 304 (UNPAINTED)
(16) REQUIRED



S.S. LOWER VERTICAL PLATE

MARK: FUA1

PL 1" x 3 1/2" x 11"
ASTM A240 TYPE 304 (UNPAINTED)
(32) REQUIRED



S.S. LOWER BASE PLATE

MARK: FUA1

PL 3/8" x 6 1/4" x 12"
ASTM A240 TYPE 304 (UNPAINTED)
(16) REQUIRED

SEE SHEET 1
FOR GENERAL NOTES

SEE SHEET 3
FOR ASSEMBLY DETAILS

STATE OF VERMONT
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VT ROUTE 65 (MINOR COLLECTOR)
BRIDGE NO. 2
TOWN OF BROOKFIELD

STATE	COUNTY	CONTROL NO.
VT	ORANGE	NA

PROJECT NO.: BRF FLBR(2)

COSMEC, INC.
STAINLESS STEEL BEARING ASSY.'S

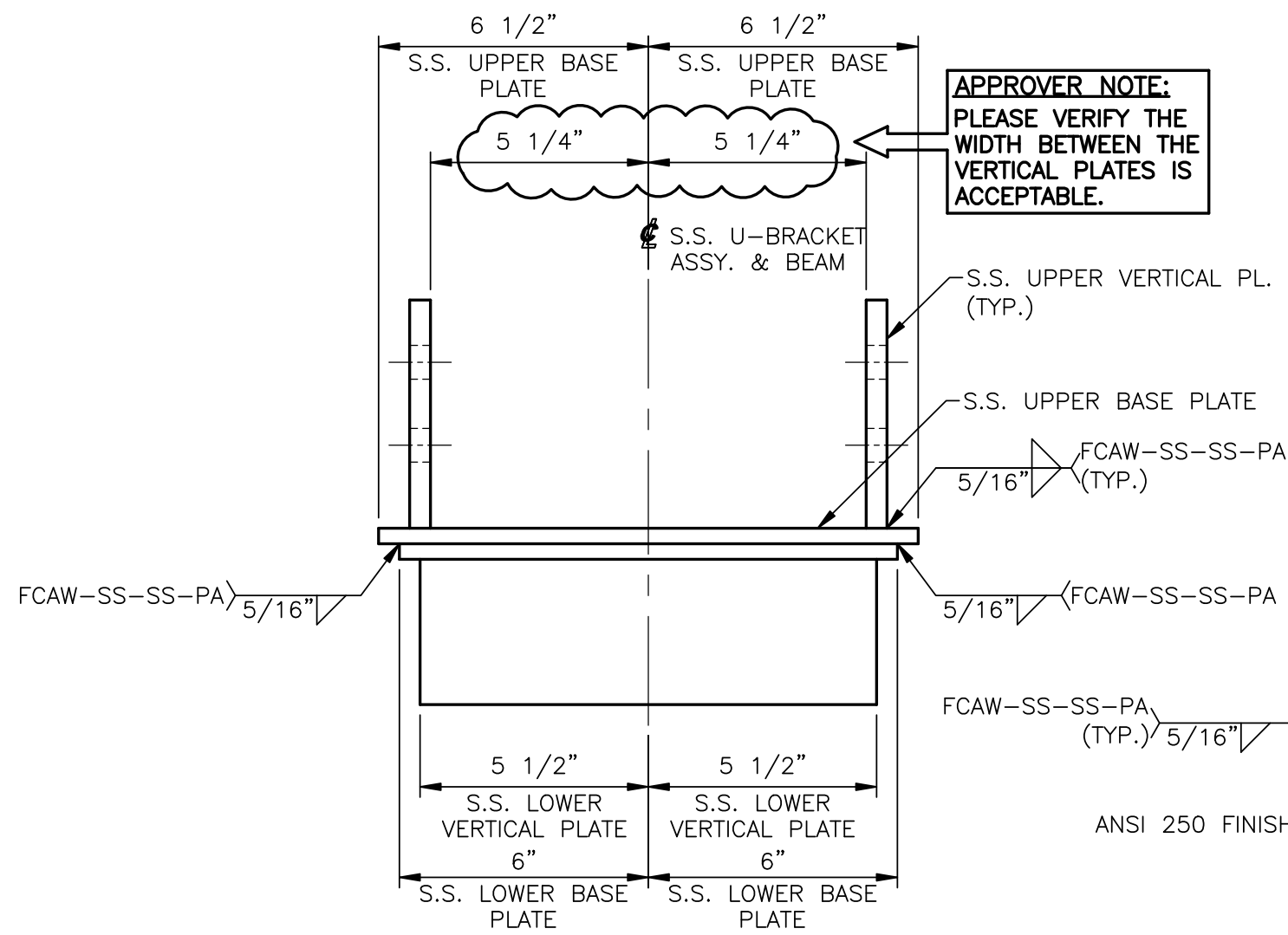
Cosmec 1501 ROCKY RIDGE ROAD
P.O. BOX 2159
ATHENS, TEXAS 75751

SCALE: NONE	DRAWN BY: MH	CHECKED BY: SL
	DATE: 05/28/14	DATE: 06/06/14

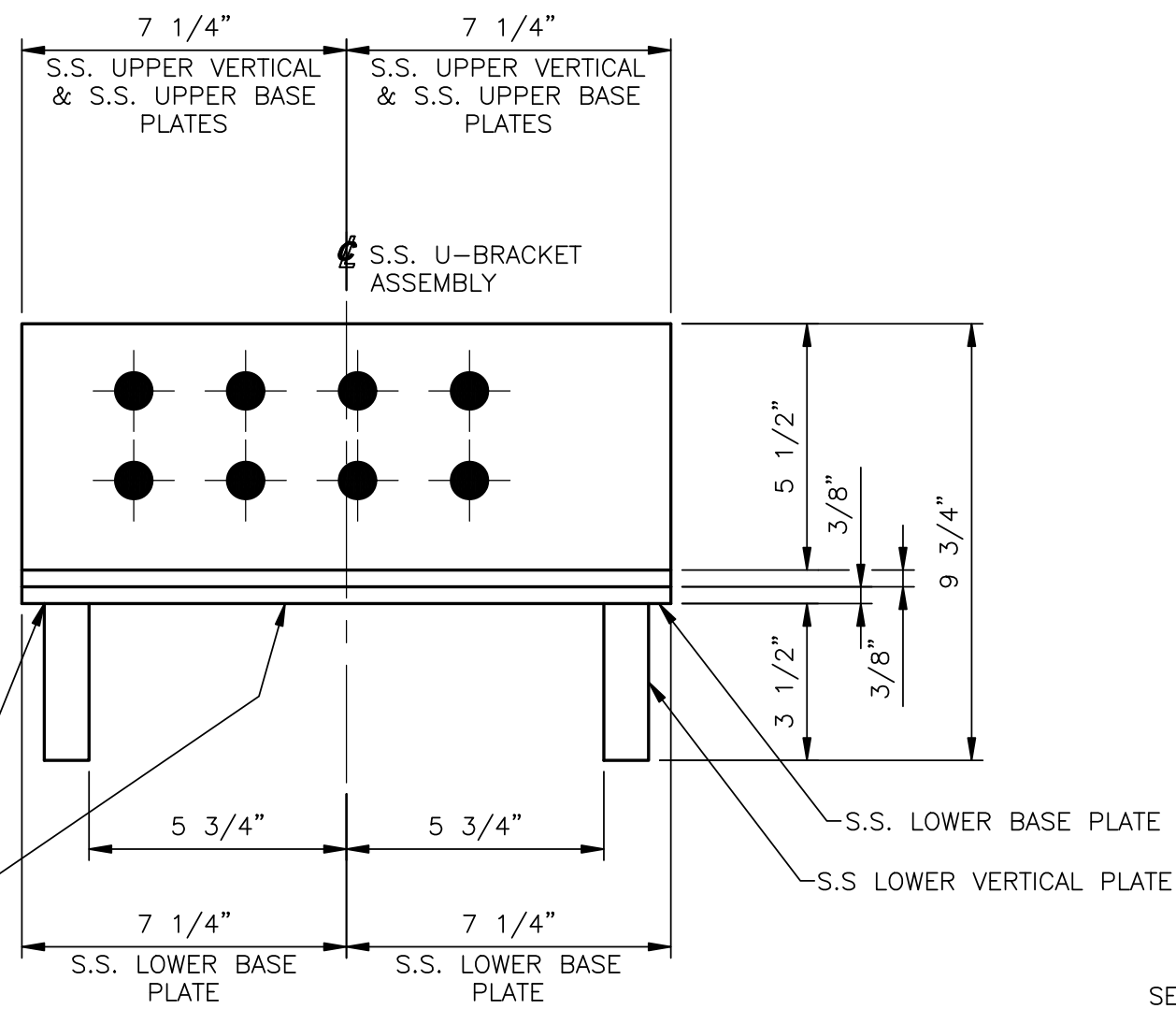
SHEET 4 OF 7 **JOB NO.: 12445**

CUSTOMER MILLER CONSTRUCTION, INC.	DRAWING NUMBER 12445-D4	REV. 0
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REV.	DESCRIPTION	BY	DATE	CK'D	DATE
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FRONT VIEW



ELEVATION VIEW

S.S. EXPANSION U-BRACKET ASSEMBLY
MARK: EUA1
 (8) LOCATED @ WEST FLOATING SPAN LEDGE
 (8) LOCATED @ EAST FLOATING SPAN LEDGE
 (16) REQUIRED

SEE SHEET 1
FOR GENERAL NOTES

SEE SHEET 6
FOR COMPONENT DETAILS

STATE OF VERMONT
AGENCY OF TRANSPORTATION
VT ROUTE 65 (MINOR COLLECTOR)
BRIDGE NO. 2
TOWN OF BROOKFIELD

STATE	COUNTY	CONTROL NO.
VT	ORANGE	NA

PROJECT NO.: BRF FLBR(2)

COSMEC, INC.
STAINLESS STEEL BEARING ASSY.'S

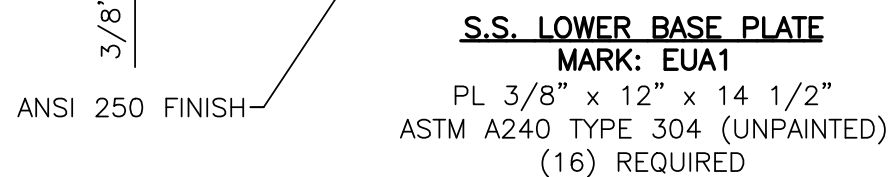
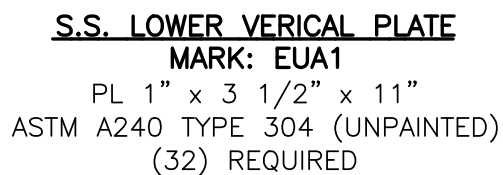
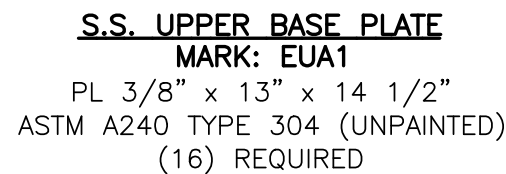
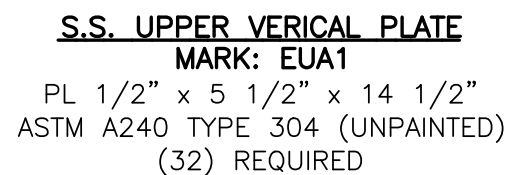
Cosmec 1501 ROCKY RIDGE ROAD
 P.O. BOX 2159
 ATHENS, TEXAS 75751

SCALE: NONE	DRAWN BY: MH	CHECKED BY: SL
	DATE: 05/28/14	DATE: 06/06/14

SHEET 5 OF 7 **JOB NO.: 12445**

CUSTOMER	DRAWING NUMBER	REV.
MILLER CONSTRUCTION, INC.	12445-D5	0

REV.	DESCRIPTION	BY	DATE	CK'D	DATE



SEE SHEET 1
FOR GENERAL NOTES

SEE SHEET 5
FOR ASSEMBLY DETAILS


STATE OF VERMONT
AGENCY OF TRANSPORTATION
VT ROUTE 65 (MINOR COLLECTOR)
BRIDGE NO. 2
TOWN OF BROOKFIELD

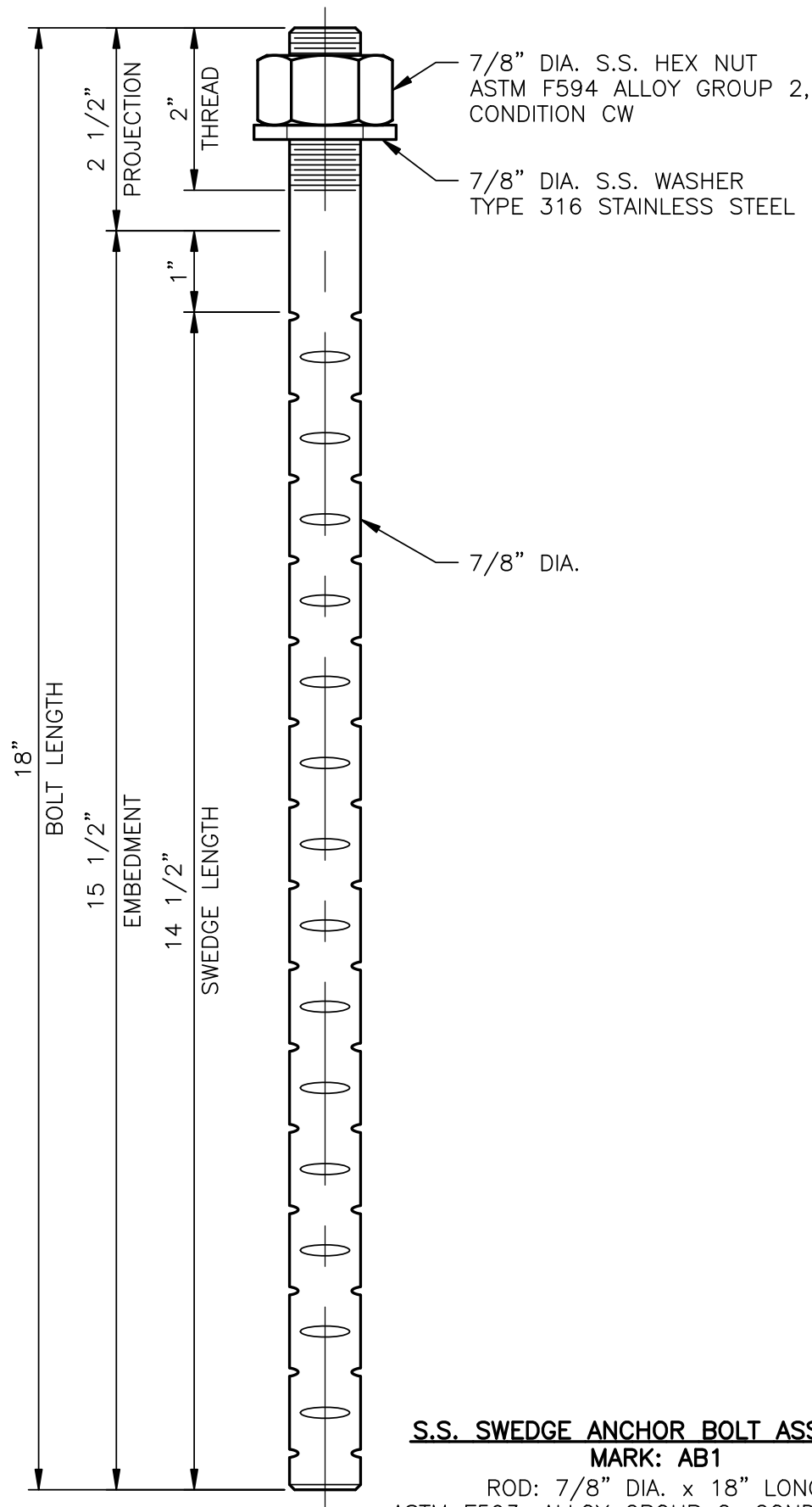
PROJECT NO.: BRF FLBR(2)

COSMEC, INC.
STAINLESS STEEL BEARING ASSY.'S

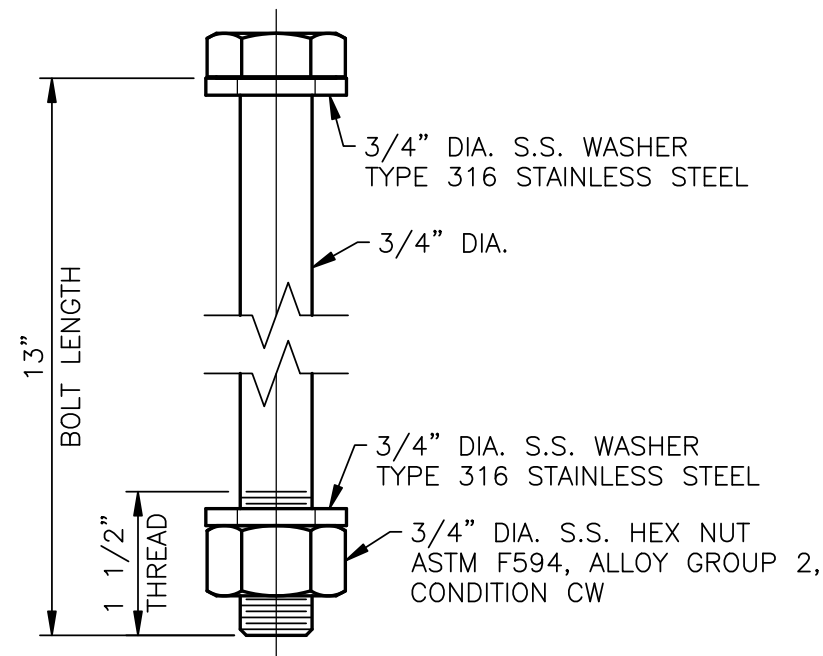
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	DATE: 05/28/14	DATE: 06/06/14

SHEET 6 OF 7	JOB NO.: 12445
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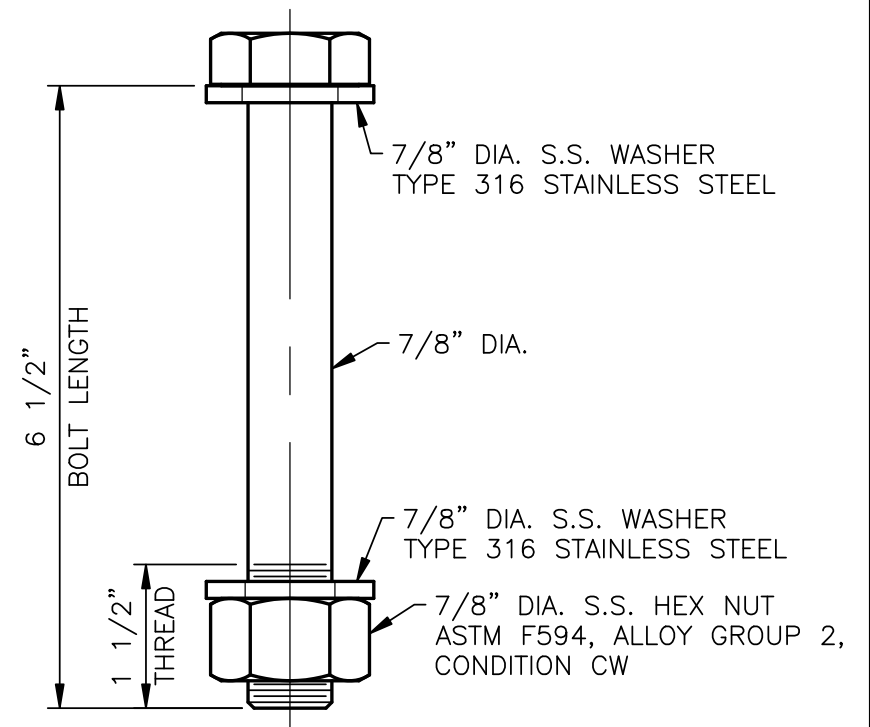
							SHEET 6 OF 7		DATE: 03/20/14		DATE: 03/20/14	
							JOB NO.: 12445					
REV.	DESCRIPTION	BY	DATE	CK'D	DATE	CUSTOMER MILLER CONSTRUCTION, INC.				DRAWING NUMBER 12445-D6	REV. 0	



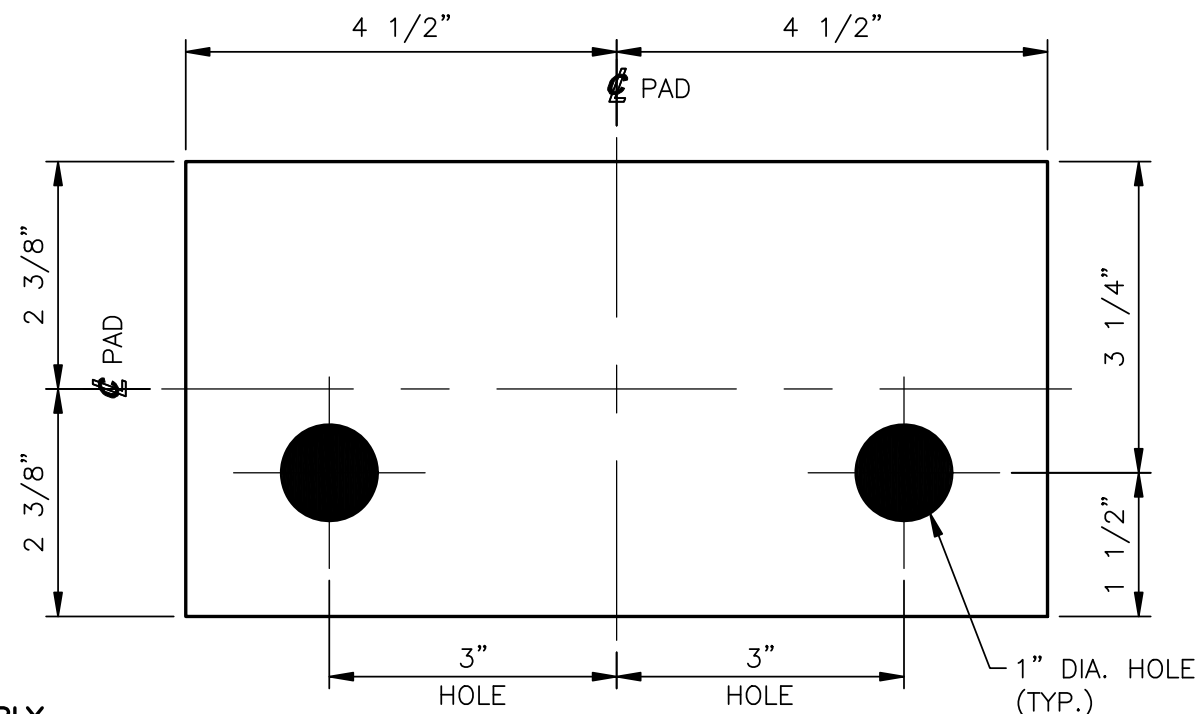
S.S. SWEDGE ANCHOR BOLT ASSEMBLY
MARK: AB1
ROD: 7/8" DIA. x 18" LONG
ASTM F593, ALLOY GROUP 2, CONDITION CW
(32) LOCATED @ ABUTMENT 1
(32) LOCATED @ ABUTMENT 2
(64) REQUIRED



S.S. CONNECTION BOLT ASSEMBLY
MARK: CB1
3/4" DIA. x 13" LONG
ASTM F593, ALLOY GROUP 2, CONDITION CW
(64) LOCATED @ ABUTMENT 1
(64) LOCATED @ WEST FLOATING SPAN LEDGE
(64) LOCATED @ ABUTMENT 2
(64) LOCATED @ EAST FLOATING SPAN LEDGE
(256) REQUIRED



S.S. CONNECTION BOLT ASSEMBLY
MARK: CB2
7/8" DIA. x 6 1/2" LONG
ASTM F593, ALLOY GROUP 2, CONDITION CW
(32) LOCATED @ WEST FLOATING SPAN LEDGE
(32) LOCATED @ EAST FLOATING SPAN LEDGE
(64) REQUIRED



BEARING PAD
MARK: BP1
PAD 1/8" x 4 3/4" x 9"
MIL-C-882
(16) LOCATED @ ABUTMENT 1
(16) LOCATED @ ABUTMENT 2
(32) REQUIRED

SEE SHEET 1
FOR GENERAL NOTES

SEE SHEETS E1 THRU E3
FOR INSTALLATION DETAILS

STATE OF VERMONT
AGENCY OF TRANSPORTATION
VT ROUTE 65 (MINOR COLLECTOR)
BRIDGE NO. 2
TOWN OF BROOKFIELD

STATE	COUNTY	CONTROL NO.
VT	ORANGE	NA

PROJECT NO.: BRF FLBR(2)

COSMEC, INC.
STAINLESS STEEL BEARING ASSY.'S

Cosmec 1501 ROCKY RIDGE ROAD
P.O. BOX 2159
ATHENS, TEXAS 75751

SCALE: NONE	DRAWN BY: MH	CHECKED BY: SL
	DATE: 05/28/14	DATE: 06/06/14

SHEET 7 OF 7 **JOB NO.: 12445**

CUSTOMER MILLER CONSTRUCTION, INC.	DRAWING NUMBER 12445-D7	REV. 0
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△					
REV.	DESCRIPTION	BY	DATE	CK'D	DATE

COSMEC INC.
WELDING PROCEDURE SPECIFICATION

SPECIFICATIONS AND CODE: D1.6

MATERIAL SPECIFICATION ASTM A240 TYPE 304

WELDING PROCESS----- FCAW

MANUAL OR MACHINE----- SEMI-AUTO

POSITION OF WELDING----- 2F

FILLER METAL SPECIFICATION ER309LT1-1

CLASSIFICATION: A5.22

MANUFACTURER: AVESTA

TRADENAME: N/A

FLUX----- INTERNAL

SHIELDING GAS----- CO2

FLOW RATE 45 CFH

SINGLE OR MULTIPLE PASS SINGLE

SINGLE OR MULTIPLE ARC SINGLE

WELDING CURRENT----- DC

POLARITY: REVERSE (EP)

WELDING PROGRESSION-----

ROOT TREATMENT----- CLEANED & PREPARED BRIGHT METAL

PREHEAT AND INTERPASS TEMPERATURE----- SEE BELOW

POSTHEAT TEMPERATURE N/A

HEAT INPUT MIN.----- MAX.-----

WELDING PROCEDURE

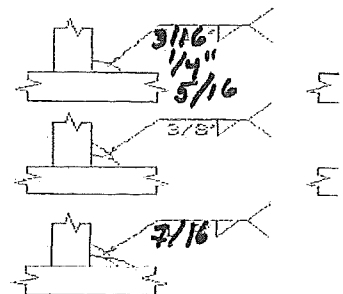
PASS NO.	ELECTRODE SIZE	WELDING CURRENT AMPERES	VOLTS	TRAVEL SPEED	JOINT DETAIL
ALL	0.045	190---220	28--30	11 IPM	

BM THICKNESS

T1= 1/2" TO U T2= 1/2"

PREHEAT TEMPS.

THICKNESS	TEMP.
UP TO 3/4"	100 DEG.
OVER 3/4" TO 1 1/2"	100 DEG.
OVER 1 1/2" TO 2 1/2"	100 DEG.
OVER 2 1/2"	100 DEG.



THIS PROCEDURE MAY VARY DUE TO FABRICATION SEQUENCE, FIT-UP, PASS SIZE, ETC.
WITHIN THE LIMITATION OF VARIABLES GIVEN IN SECTION 5.

SUPPORTING PQR:

PROCEDURE NO. FCAW-SS--SS-PA

CONTRACTOR: COSMEC INC.
AUTHORIZED BY: DONALD VOSE

REVISION NO.

DATE: 11/17/2005



Donald F Vose
CWI 01100651
QC1 EXP. 10/1/2016

